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Functions and Activities of State Extension Specialists

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FUNCTIONS AND ACTIVITIES OF STATE EXTENSION SPECIALISTS

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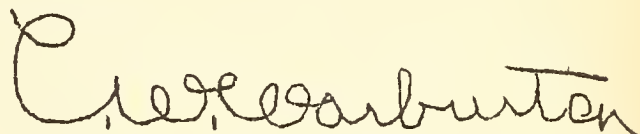
FOREWORD

The placing of trained representatives of the State college of agriculture and of the United States Department of Agriculture in a county to reside there and to assist rural people with their farm and home problems is the most significant feature of the present system of extension education in agriculture and home economics. These county agricultural and home demonstration agents are general teachers dealing with the whole range of agricultural and home-economics subject matter. To supplement and strengthen this force, it has been found desirable to provide a corps of subject-matter specialists at the college.

While agreeing as to the need for State extension specialists to assist the county extension agents with specialized subject-matter problems, administrative officers hold quite divergent views as to how many specialists are required and the best ways of organizing and supervising the specialist staff.

In this circular the authors present an analysis of the functions and activities of State extension specialists based on information obtained from the specialists themselves, the county workers with whom they work, and the extension directors who are responsible for the administration and supervision of the specialist force.

It is hoped that this study will promote a better understanding of the fundamental contribution of specialists to extension teaching. A foundation has been laid also for other studies relating to the detailed phases of specialist work.



C. W. Warburton,
Director of Extension Work

DISTRIBUTION: A copy of this publication has been sent to each State extension director and assistant director; each supervisor and assistant supervisor of agricultural, home demonstration, and club work in the States; each State subject-matter specialist; and each agricultural college and experiment station library.

Contents

	Page		Page
Foreword.....	1	Agent's evaluation of special-	
Introduction.....	3	ists' activities.....	17
Functions of State specialists.....	4	Conferences.....	17
Time spent on functions by		Visits to counties.....	18
specialists.....	4	Teaching materials.....	20
Planning functions.....	4	Correspondence, circular let-	
Training functions.....	5	ters, and service activities	21
Direct teaching of rural		Changes in emphasis suggested	
people.....	6	by agents.....	22
Studying the job.....	6	Comments of agents regarding	
Specialists' functions evaluated.	6	specialists.....	22
Activities of State specialists....	7	Administration and supervision of	
Time devoted to activities.....	7	specialists.....	26
Specialists rate their activities	8	How many specialists are	
Conferences.....	8	required?.....	26
Visits to counties.....	9	Officing of specialists.....	30
Meetings of commodity groups.	10	Division of work among	
Correspondence, radio, talks,		specialists.....	31
exhibits and reports.....	11	How counties to be worked in by	
Preparation of teaching		specialists are determined....	32
materials.....	11	Who supervises specialists?.....	32
Service activities.....	11	Cost of specialist's service to	
What county extension agents think		county.....	33
about specialists.....	12	Qualifications of specialists....	33
Assistance received and desired		Education and experience.....	33
from specialists.....	13	Evaluation of qualifications of	
Program determination and		agricultural specialists....	34
project planning.....	13	Evaluation of qualifications of	
Maintaining cooperative		home-economics specialists..	35
relations.....	14	Academic rank of specialists.....	36
Determining progress and		Sabbatic leave and retirement	
accomplishments.....	14	privileges.....	37
Subject-matter information...	15	Ways of improving specialists'	
Teaching materials.....	15	work.....	37
Use of means and agencies....	16	How success of specialists' work	
Direct teaching of rural		is determined.....	38
people.....	16	Conclusions.....	39
Studying the job.....	17		

INTRODUCTION

"A fundamental principle underlying extension work is that the agricultural college and experiment station and the United States Department of Agriculture have something to extend. If this principle is correct it then makes necessary the employment of subject-matter specialists who shall represent the subject-matter departments of our colleges and stations and the United States Department of Agriculture and who shall assist the county agents in organizing and forwarding their subject-matter programs. These specialists are absolutely necessary to the greatest success of county agent work, and to all cooperative extension work. We recommend that in reports of accomplishments the work done by specialists shall be recognized and their place in the organization shall be clearly shown."

This statement from the report of the Committee on Extension Organization and Policy, 1921 annual meeting of the Land Grant College Association, is a reasonably satisfactory definition of the job of the State subject-matter specialist, and a clear exposition of the importance of the specialists to the extension system. It was the outgrowth of several years of discussion in national meetings of extension administrative officials as to whether or not subject-matter specialists were a necessary part of the extension system. With the State officers charged with the administration of cooperative extension work under the Smith-Lever Act arriving at this conclusion after seven years of experience it is not surprising that the number of subject-matter extension specialists has increased consistently with the growth in numbers of county extension workers.

A study of the ratios of State specialists to county workers during the period 1923 to 1932 indicates that proportionately the number of specialists has increased only slightly more rapidly than has the number of county workers. In 1923 there was one specialist employed for every 3.9 county workers. In 1932 the number of county workers per specialist was 3.7. The entire cooperative extension personnel on November 30, 1932, comprised 1,162 specialists in agriculture and home economics as compared to 4,229 county extension workers and 499 administrative and supervisory officers.

While State extension directors no longer question the need for subject-matter specialists to support the county workers there remains much difference of opinion regarding proper articulation of the functions and activities of State specialists with those of county extension agents. This circular presents a detailed analysis of the functions and activities of subject-matter specialists and their contacts with county workers. It includes also a study of the qualifications of specialists and present practices in the administration and supervision of the State specialist force.

FUNCTIONS OF STATE SPECIALISTS

An analysis of the job of the State extension specialist, based upon a study of specialists' plans of work and annual reports, supplemented by the authors' experiences and observations, indicates that the work of specialists can be listed under nine headings. These nine kinds of work logically fall into four broad groups: Planning functions, training functions, direct teaching functions, and studies to increase effectiveness of work.

Specialists throughout the country were furnished with lists of these functions and asked to indicate the proportion of time devoted to each. This part of the questionnaire was answered by 654 specialists which is slightly more than 50 per cent of the entire number of specialists employed in the 48 States and Hawaii. Of these 654 specialists, 497 were in agriculture, 142 in home economics and 15 in editorial, radio, and similar work. Forty-two of the extension directors rated these functions as to whether considered as of low, medium, or high value from the standpoint of the entire extension service.

Time Spent on Functions by Specialists

Planning functions.— The planning functions of specialists relate to the setting up of extension programs, the development of plans to carry out the projects or phases of projects included in the programs, provision for the helpful cooperation of other organizations interested in the field of subject matter in which the specialist is engaged, and the devising of ways and means of measuring the progress made and the definite accomplishments resulting from specialists' and agents' efforts in the various subject-matter fields.

Planning functions as a whole consume approximately one-fourth of the time of all specialists. The percentage of time spent on planning functions is slightly higher for agricultural specialists than for home-economics specialists and somewhat higher for miscellaneous¹ specialists than for agricultural specialists. These data were furnished by the 654 specialists cooperating in this part of the study. (Table 1.) Home-economics specialists devote less time to program determination but more time to project planning than do agricultural specialists. Maintaining working relations with other interested organizations requires more than twice as much time of agricultural and other specialists than of home-economics specialists. Developing plans for measuring progress and accomplishments takes more time of the agricultural and home-economics than of the miscellaneous specialists.

¹/Includes editorial, radio and all other specialists not classified as agriculture or home economics.

Training functions. - Approximately one-fourth of the time of specialists is devoted to keeping other extension workers, principally county extension agents informed and up to date in subject matter and methods. Miscellaneous specialists spend a little more and home-economics specialists spend a little less time on these duties than do agricultural specialists. (Table 1.)

*
Table 1. - Functional distribution of specialists' time
(654 specialists reporting)

Functions	Percentage of time spent by			
	Agricultural specialists	Home-econ. specialists	Other specialists	All specialists
<u>Planning functions</u>				
Program determination.....	5.2	3.8	6.1	4.9
Project planning.....	9.2	11.1	13.0	9.7
Maintaining cooperative relations with other organizations.....	6.2	2.6	8.8	5.5
Determining progress and accomplishments.....	6.5	5.9	4.2	6.3
Total planning functions.....	27.1	23.4	32.1	26.4
<u>Training functions</u>				
Administrative and supervisory staff.....	4.9	3.2	5.0	4.5
County extension workers.....	21.3	18.0	23.2	20.7
Total training functions.....	26.2	21.2	28.2	25.2
<u>Direct teaching functions</u>				
State-wide.....	10.2	5.8	14.7	9.3
County.....	29.6	43.7	19.5	32.4
Total direct teaching functions.....	39.8	49.5	34.2	41.7
<u>Studying extension job</u>				
Making studies to determine more effective methods of conducting project,.....	6.9	5.9	5.5	6.7
Total all functions.....	100	100	100	100

*Includes editorial, radio and other specialists not classified as agriculture or home economics.

Direct teaching of rural people. -The teaching of better farm and home practices to rural people through state-wide and county extension activities requires from one-third to one-half of the time of specialists, being highest for home-economics specialists and lowest for the miscellaneous group. Home-economics specialists spend 44 per cent of their time in teaching within the county and six per cent on state-wide teaching activities. Agricultural specialists devote 30 per cent of time to county teaching and 10 per cent to State meetings, farmers' weeks and similar State teaching activities. In the case of the other specialists nearly 15 per cent of time is consumed by State activities and 20 per cent in teaching rural people within the counties.

Studying the job. - The carrying on of studies to determine more effective ways of organizing and conducting extension work in the various subject-matter lines or projects requires from 5.5 to 6.9 per cent of specialist's time. This would seem like a good investment since the information obtained by a specialist may result in more effective teaching by all the county extension agents in the State where similar subject-matter work is under way.

Specialists' Functions Evaluated

Opinions of State directors of extension responsible for the administration of the entire extension service furnish some interesting information regarding the relative value of the various functions of the subject-matter specialists. In Table 2 these functions are listed in descending order in accordance with the percentage of extension directors giving the functions a high rating. Planning the extension project heads the list with 98 per cent of the directors rating it of high and 2 per cent of medium value. Organization and preparation of materials for use in teaching the subject matter concerned, either by the specialists themselves or by county extension workers, is the next most important duty of specialists according to the directors, 74 per cent of whom gave it a high rating.

The determination of extension programs in the various subject-matter fields followed closely by the training of extension workers in methods applicable to the various subject-matter projects are next on the list, being rated high by 69 and 67 per cent of the directors respectively. Seven per cent of the directors, however, rated the work of specialists on program determination as of low value.

Nearly two-thirds of the directors consider the direct teaching of rural people either on the state-wide or county basis as of high value. It is rather surprising, however, to note that but 60 per cent of the directors rate high the function of specialists to keep other extension workers posted on recent developments in the subject-matter fields. This duty was early advanced as one of the chief reasons for employing specialists in the extension system. Maintaining the interest and active support of organizations throughout the State in the extension programs of their respective subject-matter fields is an important function of specialists, according to 60 per cent of the directors. Seven per cent, however, rate this function of low value.

The work of specialists in measuring progress and results of extension effort is considered the least important of the specialists' functions listed, being rated high by only half of the directors.

Table 2. Specialists' functions evaluated by directors

(42 extension directors reporting)

Function	*Percentage of directors estimating value		
	Low	Medium	High
Project planning.	0	2	98
Preparing teaching materials.....	2	19	74
Program determination.....	7	24	69
Training extension workers in methods.....	2	31	67
Direct extension teaching.....	5	28	64
Keeping other extension workers posted on subject matter.....	2	33	60
Maintaining cooperative relationships with other organizations.....	7	33	60
Determining progress and accomplishments.....	7	40	50

*Not all directors rated every function.

ACTIVITIES OF STATE SPECIALISTS

In performing their various duties specialists employ various means and agencies and engage in various activities. The amount of time devoted to these activities and the opinions of specialists as to their relative value, provide bases for studying the importance of these various activities to the prosecution of specialist work throughout the State.

Time Devoted to Activities

Visits to counties to confer with agents regarding conduct of work, make field observations, meet with extension committees, or engage in teaching activities consume more time of all specialists than any other single activity. According to the estimates of 642 specialists, 48 per cent of the time of home-economics specialists and 41 per cent of the time of agricultural specialists is spent on visits to counties. The miscellaneous specialists devote but 25 per cent of their time to county work. (Table 3.)

The second largest time-consuming activity of specialists is preparation of teaching materials for use either by the specialists themselves or by county extension agents, requiring 14 per cent of the time of agricultural specialists, 20 per cent of the time of home-economics specialists and 24 per cent of the time of other specialists.

Conferences, correspondence, and reports each consume from 7 to 10 per cent of the time of the agricultural and home-economics specialists. Meetings with enterprise or commodity groups take a little more than 7 per cent of the time of agricultural specialists and a little less than 2 per cent of the time of the home-economics specialists. Service activities such as soil testing, market reports and the like, take nearly 6 per cent of the agricultural specialists' time and between one and two per cent of the time of home-economics specialists. Circular letters to agents, judging fair exhibits, and radio talks each require from 2 to 4 per cent of the time of agricultural and home-economics specialists.

Table 3.- Distribution of specialists' time on various activities

(642 specialists reporting)

Activity	Percentage of time of			
	Agricultural specialists	Home-econ. specialists	Other specialists	All specialists
Conferences.....	8.2	8.5	12.6	8.4
Visits to counties.....	40.7	47.7	24.8	41.8
Correspondence.....	9.9	6.6	10.4	9.2
Circular letters to agents....	3.7	2.5	2.1	3.4
Meetings of enterprise or commodity groups.....	7.3	1.8	2.4	6.0
Judging fair exhibits.....	2.3	2.5	1.2	2.3
Radio talks.....	2.1	1.7	12.3	2.3
Preparing teaching materials..	13.6	19.7	24.1	15.1
Service activities.....	5.6	1.4	5.3	4.7
Reading and making reports....	6.6	7.6	4.8	6.8
Total all activities....	100	100	100	100

Specialists Rate Their Activities

Of the 660 specialists cooperating in this study 638 gave an opinion as to the value of the various activities engaged in. Values were rated as low, medium, or high.

Conferences. - The special group conference where a small number of specialists, supervisors, and agents meet to consider a special problem or piece of work was rated higher than other types of conferences by all three kinds of specialists. (Table 4.) The headquarters staff conference was considered of next greatest value by all three groups of specialists. The statewide conference of all extension workers was given a higher rating than the district conference by home-economics specialists. In the case of agricultural and other specialists, district conferences were given the higher rating. Considering all specialists, these two types of conferences are considered of about equal value.

Regional and national conferences were rated high by less than 30 per cent of all specialists. Home-economics specialists, however, expressed the opinion that such conferences were of greater value than the district conferences held within the State.

Table 4. - Opinions of specialists regarding value of conferences

(638 specialists reporting)

Kind of Conference	*Percentage of specialists in											
	Agriculture			Home Economics			Other			Total		
	Low	Medium	High	Low	Medium	High	Low	Medium	High	Low	Medium	High
National and regional.....	19	38	27	6	29	38	27	27	7	15	36	29
State-wide.....	8	44	37	3	32	57	13	33	33	7	41	41
Headquarters staff.....	3	30	55	1	27	60	7	20	60	2	29	55
District.....	6	30	42	1	26	30	7	20	47	5	29	40
Special group.....	3	12	71	1	5	81	0	0	80	3	10	74

*Not all specialists reporting rated every activity.

Visits to counties. - Participation in teaching activities was rated of higher importance than other purposes for which specialists visit counties. (Table 5.) Conferences with county extension agents in their offices and observation of work under way in the field were rated of about equal value when all specialists are considered. Agricultural specialists placed a little higher value upon field observations than upon conferences with the agent in his office. With home-economics specialists the opposite was true. Differences in home-economics and agricultural subject matter may account for part of this difference in point of view.

Attending meetings of extension committees within the county was considered of high value by 33 per cent of all specialists, of medium value by 30 per cent, and of low value by 9 per cent.

Table 5. - Visits to counties for various purposes compared by specialists

(638 specialists reporting)

Purpose of visit	Percentage of specialists in											
	Agriculture			Home Economics			Other			Total		
	Low	Medium	High	Low	Medium	High	Low	Medium	High	Low	Medium	High
Office conference:	:	:	:	:	:	:	:	:	:	:	:	:
with agent.....	4	26	63	2	10	35	0	27	67	4	22	68
Field observa-	:	:	:	:	:	:	:	:	:	:	:	:
tions.....	1	19	71	4	18	57	13	7	67	2	19	68
Meeting with ex-	:	:	:	:	:	:	:	:	:	:	:	:
tension committee:	9	33	38	8	16	40	7	27	33	9	30	38
Participation in	:	:	:	:	:	:	:	:	:	:	:	:
teaching ac-	:	:	:	:	:	:	:	:	:	:	:	:
tivities.....	1	8	85	1	0	95	13	7	67	1	6	87
	:	:	:	:	:	:	:	:	:	:	:	:

Meetings of commodity groups. - Agricultural specialists, particularly, devote considerable time to attending meetings of commodity organizations and enterprise groups. Such meetings held upon a local or county basis were considered of high value by nearly one-half of the agricultural specialists. (Table 6.) Sectional and state-wide meetings were rated High by about one-fourth of the agricultural specialists. One half of this group of specialists consider attendance at regional or national meetings of commodity groups of medium or low value. Only a small percentage of home-economics specialists rated the activities listed under this heading.

Table 6. - Kinds of commodity meetings compared by specialists

(638 specialists reporting)

Kind of commodity meeting	Percentage of specialists in											
	Agriculture			Home Economics			Other			Total		
	Low	Medium	High	Low	Medium	High	Low	Medium	High	Low	Medium	High
National or	:	:	:	:	:	:	:	:	:	:	:	:
regional.....	24	26	13	6	10	7	27	7	0	21	22	11
State-wide.....	16	38	20	7	12	7	20	20	13	14	32	17
Sectional.....	9	35	24	5	12	7	7	33	13	8	30	21
County.....	6	21	48	3	10	17	13	20	20	6	19	41
Local.....	8	16	48	5	7	16	7	7	33	7	14	41
	:	:	:	:	:	:	:	:	:	:	:	:

Correspondence, radio talks, exhibits and reports. - Correspondence with agents and farm people was rated of high or medium value by 81 to 87 per cent of the specialists in the three groups. (Table 7.) Circular letters to agents were considered of medium to high value by 53 to 75 per cent of the three groups of specialists, while from 18 to 27 per cent reported them of low value.

High value was assigned to radio talks by only 12 to 13 per cent of agricultural and home-economics specialists. An additional 36 to 40 per cent rated this activity of medium value while 34 to 38 per cent of the home-economics and agricultural specialists gave this activity a low rating. More than one-fourth of the miscellaneous specialists gave radio talks a high rating but nearly one-half stated that this activity was of low value.

From 72 to 85 per cent of agricultural and home economics specialists consider the reading of reports of other extension agents and the making of their own reports of high or medium value.

The judging of fair exhibits was rated low by from 45 to 50 per cent of all three groups of specialists. Only 9 per cent gave this activity a high rating.

Table 7. - Opinions of specialists regarding value of correspondence
circular letters, judging fair exhibits,
radio talks and reports

(633 specialists reporting)

Kind of activity	Percentage of specialists in											
	Agriculture			Home economics			Other			Total		
	Low	Medium	High	Low	Medium	High	Low	Medium	High	Low	Medium	High
Correspondence...	9	40	45	12	47	34	7	40	47	10	41	43
Circular letters to agents.....	18	44	31	23	46	13	27	40	13	20	45	27
Judging fair exhibits.....	45	24	7	50	16	14	47	20	0	46	22	9
Radio talks.....	34	40	13	38	36	12	47	13	27	35	33	13
Reading and making reports...	15	42	30	3	44	41	13	53	13	12	43	32

Preparation of teaching materials. - The preparation of bulletins, circulars, and demonstration materials for use by specialists or county workers was given a high rating by 83 per cent of the home-economics specialists, in contrast to 63 per cent of the agricultural specialists. More than half of the specialists in all three groups rated charts of high value. (Table 8.)

Service activities such as soil testing and blood testing are not performed by all specialists which doubtless accounts for the small percentage of specialists rating such activities. Approximately equal percentages of specialists rated service activities of low and high value.

Table 8. - Opinions of specialists regarding preparation of teaching materials and service activities

(638 specialists reporting)

Kind of teaching material or service activity	Percentage of specialists in											
	Agriculture			Home Economics			Other			Total		
	Low	Medium	High	Low	Medium	High	Low	Medium	High	Low	Medium	High
Publications, bulletins, circu- lars, etc.....	2	29	63	2	6	84	0	13	80	2	24	68
Charts.....	5	32	50	5	21	58	0	27	47	5	30	52
Demonstrational materials.....	3	16	64	1	7	83	13	13	47	3	14	68
Service activities:	16	20	22	9	8	7	13	13	13	14	18	18

WHAT COUNTY EXTENSION AGENTS THINK ABOUT SPECIALISTS

If, as suggested earlier in this circular, one of the major reasons for having specialists is to assist county extension workers with special subject-matter problems, it should be helpful to consider the points of view of county extension agents regarding the assistance being received from specialists. How do agents rate the various activities in which specialists engage? What additional assistance do agents want from specialists?

Agricultural agents and home demonstration agents in nine States^{2/} selected to represent all sections of the country, were sent questionnaires and approximately 60 per cent of the agents employed in these nine States furnished information for use in this study. Four hundred and two agents reported on the nature of the assistance received and desired from specialists, and 399 supplied information regarding the activities of specialists which were helpful. Of the latter, however, only 289 agents gave complete information as to the number of specialists contacted in the different ways and the number of specialists rendering a small, medium, or large amount of assistance in each way. Only complete replies to each part of the questionnaire will be considered.

^{2/}Arkansas, Kansas, Kentucky, Montana, New Jersey, New York, South Carolina, Washington, and Wisconsin.

Assistance Received and Desired from Specialists

Program determination and project planning. - Of the 402 agents reporting on this part of the questionnaire 89 per cent reported help from specialists on determining county-wide programs and 55 per cent on community programs. (Table 9.) Nearly two-fifths of the agents reporting desire additional assistance from specialists with community and county programs.

Selection of goals, analysis of subject matter, analysis of situation, and correlation of agents' and specialists' plans were the phases of project planning with which from 60 to 73 per cent of the agents received help from specialists. More than half of the agents had help in the selection of suitable means and agencies for use in teaching the different subject-matter lines of work. From one-fifth to one-third of the agents want additional assistance in project planning, -analysis of situation, determination of results and correlation of agents' and specialists' plans being the phases most frequently mentioned.

Table 9. - Assistance in program determination and project planning received and wanted from specialists by agents

(402 agents reporting)

Nature of assistance	:Percentage of agents reporting:						Percentage of agents reporting					
	: assistance received						:additional assistance desired					
	: Agric. :			Home dem.:			: Agric. :			Home dem.:		
	: agents :			agents :			: agents :			agents :		
	:	:	:	:	:	:	:	:	:	:	:	:
<u>Program determination:</u>	:	:	:	:	:	:	:	:	:	:	:	:
County-wide programs..	89	:	90	:	89	:	39	:	33	:	37	:
Community programs...	54	:	57	:	55	:	41	:	38	:	40	:
	:	:	:	:	:	:	:	:	:	:	:	:
<u>Project planning:</u>	:	:	:	:	:	:	:	:	:	:	:	:
Analysis of situation:	66	:	57	:	63	:	37	:	26	:	34	:
Analysis of subject	:	:	:	:	:	:	:	:	:	:	:	:
matter.....	60	:	70	:	64	:	23	:	21	:	23	:
Selection of goals...	68	:	73	:	70	:	22	:	25	:	23	:
Choice of means and	:	:	:	:	:	:	:	:	:	:	:	:
agencies.....	51	:	55	:	52	:	25	:	24	:	25	:
Determination of	:	:	:	:	:	:	:	:	:	:	:	:
results.....	44	:	52	:	47	:	32	:	30	:	32	:
Correlation with	:	:	:	:	:	:	:	:	:	:	:	:
other agents' and	:	:	:	:	:	:	:	:	:	:	:	:
specialists' plans...	63	:	64	:	63	:	32	:	26	:	30	:
Cooperation with	:	:	:	:	:	:	:	:	:	:	:	:
other agencies.....	43	:	46	:	44	:	20	:	20	:	20	:
	:	:	:	:	:	:	:	:	:	:	:	:

Maintaining cooperative relations. - Specialists are apparently very helpful in maintaining cooperative relationships between the research department of the college or experiment station and the extension agents in the counties. (Table 10.) This is in line with one of the most common reasons put forward for having specialists. Specialists were also of assistance in relations with farmers' organizations and with business men's organizations. About one-third of the agents mentioned this assistance. Approximately one-fourth of the agents want additional help from specialists in improving relations with research departments and with farmers' organizations.

Determining progress and accomplishments. - On the whole, the home-economics specialists seem to be rendering more assistance to agents in this group of functions than are the agricultural specialists. (Table 10.) Sixty-nine per cent of the county extension agents reported assistance from specialists in the keeping of records and the making of reports. From 46 to 51 per cent of the agents received assistance in deciding upon ways and means of measuring results, the collection of data on results, and in the analysis of records and reports. Forty-three per cent of the agents want more help from specialists in deciding upon ways and means of measuring extension accomplishment. Thirty-six per cent want more help in the actual collection of data on results.

Table 10. - Assistance in maintaining cooperative relationships and in determining progress and accomplishments, received and wanted from specialists by agents

(402 agents reporting)

Nature of assistance	:Percentage of agents reporting:			:Percentage of agents reporting:		
	: assistance received			: additional assistance desired		
	: Agric. :	: Home Dem.:	: Total	: Agric. :	: Home Dem.:	: Total
	: agents :	: agents	: agents	: agents :	: agents	: agents
<u>Maintaining coopera-</u>	:	:	:	:	:	:
<u>tive relationships</u>	:	:	:	:	:	:
<u>with:</u>	:	:	:	:	:	:
Farmers' organizations:	53	23	42	28	15	24
Business men's organ-	:	:	:	:	:	:
izations.....:	27	32	29	19	22	20
Commercial firms and	:	:	:	:	:	:
agencies.....:	28	48	35	13	17	14
Research departments	:	:	:	:	:	:
of colleges and	:	:	:	:	:	:
experiment stations..:	76	63	72	30	19	27
Other public	:	:	:	:	:	:
agencies.....:	22	31	25	14	18	15
<u>Determining progress</u>	:	:	:	:	:	:
<u>and accomplishments:</u>	:	:	:	:	:	:
Records and reports..:	64	80	69	31	26	29
Ways and means of	:	:	:	:	:	:
determining results:	:	:	:	:	:	:
of work.....:	45	58	50	41	47	43
Collecting data on	:	:	:	:	:	:
results.....:	44	51	46	38	32	36
Analysis of records	:	:	:	:	:	:
and reports.....:	50	53	51	35	29	33
	:	:	:	:	:	:

Subject-matter information. - From 75 to 89 per cent of the agents reporting, received subject-matter help from specialists through lectures at annual conferences, participation in county extension activities, or under the general heading of keeping posted. (Table 11.) Forty-seven per cent of the agents desire more help from specialists in keeping posted on subject-matter developments.

Teaching materials. - Two-thirds of the agents reported help from specialists with charts. (Table 11.) Fifty-seven per cent mentioned demonstration material and 43 per cent, exhibit material. Forty-six, 42, and 36 per cent of the agents, respectively, want additional demonstration material, charts and exhibit material.

Table 11 - Assistance with subject matter, teaching materials,
and in use of means and agencies in relation
to subject matter, received and wanted
from specialists by agents

(402 agents reporting)

Nature of assistance	:Percentage of agents reporting:			:Percentage of agents reporting:		
	: assistance received			: additional assistance desired		
	: Agric. :	: Home Dem. :	: Total :	: Agric. :	: Home Dem. :	: Total :
	: agents :	: agents :	: agents :	: agents :	: agents :	: agents :
<u>Assistance with</u>	:	:	:	:	:	:
<u>subject matter:</u>	:	:	:	:	:	:
Lectures at con-	:	:	:	:	:	:
ferences and short	:	:	:	:	:	:
courses.....	90	37	89	36	22	32
Participation in	:	:	:	:	:	:
county extension	:	:	:	:	:	:
activities.....	76	79	77	34	24	30
Keeping posted.....	77	72	75	49	43	47
<u>Services and teaching</u>	:	:	:	:	:	:
<u>materials:</u>	:	:	:	:	:	:
Charts.....	70	58	66	44	40	42
Models, forms, etc..	22	41	28	24	30	26
Exhibit material....	32	64	43	32	43	36
Demonstration	:	:	:	:	:	:
material.....	47	77	57	45	48	46
<u>Assistance in use of</u>	:	:	:	:	:	:
<u>means and agencies</u>	:	:	:	:	:	:
<u>with reference to</u>	:	:	:	:	:	:
<u>subject matter:</u>	:	:	:	:	:	:
Circular letters....	70	52	64	32	22	28
News service.....	78	68	75	32	31	31
Farm and home visits:	51	40	48	22	17	20
Leader-training	:	:	:	:	:	:
meetings.....	58	80	65	42	28	37
Demonstrations.....	74	79	75	39	30	36
Publications.....	51	57	53	27	24	26

Use of means and agencies. - News service and demonstrations were the teaching means and agencies with which 75 per cent of the agents received help. Leader training meetings and circular letters were next in order of frequency of agents reporting. (Table 11.) Forty-two per cent of the agricultural agents desire more assistance with leader training meetings and 39 per cent expressed a desire for more help with demonstrations. Approximately 30 per cent of the home demonstration agents desire additional assistance with demonstrations and news writing.

Direct teaching of rural people. - Sixty-eight per cent of the home demonstration agents and 83 per cent of the agricultural agents reported that specialists had assisted them by addressing meetings of local farm men and women and 23 and 33 per cent, respectively, want more such help. (Table 12.) Assistance in the training of local leaders was mentioned by 74 per cent of the home agents and by 54 per cent of the agricultural agents. Forty-two per cent of the agricultural agents and 29 per cent of the home demonstration agents want more help along this line.

Table 12. - Assistance through service work, training of local leaders, direct teaching of farm people, and in studying the job, received and wanted from specialists by agents

(402 agents reporting)

Nature of assistance	:Percentage of agents reporting:			:Percentage of agents reporting:		
	: assistance received			: additional assistance desired		
	: Agric. : : agents	: Home dem.: : agents	: Total : agents	: Agric. : : agents	: Home dem.: : agents	: Total : agents
Service work, such as:						
soil testing, market:						
reports, etc.....	56	13	42	34	6	25
Training local leaders	54	74	60	42	29	38
Teaching of rural						
people through:						
Address at meetings..	83	68	78	33	23	30
Preparation of bulle-						
tins and circulars..	53	58	54	29	21	26
Other direct teaching	32	39	34	12	12	12
Making studies to						
determine more						
effective methods of:						
conducting subject-						
matter project.....	42	43	42	52	51	52

Studying the job. - Although only 42 per cent of the extension agents had received help from specialists in making studies to determine more effective ways of conducting extension in the various subject-matter projects, 52 per cent asked for more help with this problem. (Table 12.) This is a higher percentage of agents than asked for assistance with any other specialist function. It is of interest to note that in reply to a similar questionnaire^{3/} relating to assistance received and desired from State supervisors, sent to a representative group of agents, about one year earlier, 42 per cent of the agents asked for additional help from the State and district supervisory officers with studies to increase effectiveness of their work.

Agents' Evaluation of Specialists' Activities

As stated previously, 289 county extension agents furnished complete information regarding the number of specialists contacted in different ways during the year, and the degree of help received as the result of such contact. Of this number 191 were agricultural agents and 98 home demonstration agents. While the total number of complete replies is somewhat small it is believed that the sample is sufficiently representative to be indicative of the agents' and specialists' relationships throughout the country.

Conferences. - The annual, district, and special-group conferences held during the year provide excellent means for agents to come in contact with the various subject-matter specialists. The high proportion of agents coming in touch with specialists through conferences is brought out in Table 13. The annual state-wide conference of all State and county extension workers, by its very nature, brings the highest percentage of agents (91 per cent) in touch with the specialists. Seventy-one per cent of the agents reporting made contacts with specialists at district conferences, and 55 per cent at special-group conferences.

While fewer agents contacted fewer specialists at the special-group conferences than at the district and state-wide conferences, the proportion of specialists rendering a high degree of assistance was largest at the group conferences, and next largest at the district conferences. This would naturally be expected since only those specialists most concerned would participate in the special-group and district conferences. It is surprising to note, however, that in the judgment of the agents reporting, no help was received from 10 per cent of the specialists contacted at special-group conferences, 14 per cent of those contacted at district conferences and 9 per cent of those at the state-wide conference. This may reflect the attitude of agents toward certain specialists rather than a difference due to type of conference.

^{3/}W. W. Clark, and M. C. Wilson, Functions and Activities of Supervisors of County Extension Agents, U. S. D. A. Ext. Serv. Circ. 179, p. 21.

Table 13. - Contacts with specialists through conferences
and assistance obtained

(239 agents reporting)

Kind of conference:	Kind of agent:	Percentage of agents reporting:		Percentage of agents reporting:		Percentage of specialists contacted, from whom agents obtained the following degrees of assistance			
		of such contact with specialists:	any assistance obtained	any assistance obtained	any assistance obtained	None	Small	Medium	Large
State-wide	:Agric.	: 92	: 85	: 8	: 27	: 35	: 30		
	:H. Dem.	: 89	: 80	: 10	: 24	: 32	: 34		
	:Total	: 91	: 83	: 9	: 26	: 34	: 31		
District	:Agric.	: 73	: 63	: 13	: 16	: 35	: 36		
	:H. Dem.	: 67	: 56	: 18	: 11	: 25	: 46		
	:Total	: 71	: 61	: 14	: 15	: 32	: 39		
Special group	:Agric.	: 50	: 47	: 8	: 17	: 31	: 44		
	:H. Dem.	: 65	: 57	: 14	: 13	: 24	: 49		
	:Total	: 55	: 50	: 10	: 15	: 29	: 46		

Visits to counties. - The most common purposes of specialists' visits to counties according to agents are to confer with agent in office, to take part in some teaching activity, or to observe. (Table 14.) According to the agents, medium to large amounts of assistance were received from 74 to 77 of the specialists through field observation, meetings with extension committees and participation in teaching activities. Sixty-six per cent of the specialists coming to the county for those purposes rendered medium to large amounts of assistance through judging fair exhibits and office conferences with the agent.

From the agents' point of view no assistance was obtained from 21 per cent of the specialists judging fair exhibits, 17 per cent of specialists conferring with agents in office, 16 per cent of specialists meeting with extension committees, 12 per cent of the specialists making observations, and 9 per cent of the specialists actually taking part in teaching activities while in the county. According to home demonstration agents, no assistance was obtained from one-third of the home-economics specialists in judging fair exhibits.

One must keep in mind that this represents the agents' point of view. From the viewpoint of the specialist, worth-while results may have occurred from certain of these county visits which were not obvious to the agent. The fact that according to the agents a higher percentage of the specialists visiting counties rendered no assistance than was true of the specialists contacted through conferences, raises the question if county visits of specialists do not need to be more carefully planned. To insure recognizable accomplishments visits of specialists to counties need to be definitely planned well in advance for the express purpose of definitely assisting the county extension agent with some phase of the county program. The supervisor of county extension workers should see that the necessary preliminary work is done and that the situation is such as to make possible constructive use of the specialist's services.

Table 14. - Assistance received from specialists
through visits to counties

(289 agents reporting)

Purpose of visit to county	Kind of agent	Percentage of agents reporting such contact with specialists	Percentage of agents reporting any assistance	Percentage of specialists contacted, from whom agents obtained the following degrees of assistance			
				None	Small	Medium	Large
Conference with agent at office							
	: Agric.	: 84	: 74	: 17	: 18	: 32	: 33
	: H. Dem.	: 91	: 72	: 16	: 13	: 27	: 44
	: Total	: 86	: 73	: 17	: 17	: 30	: 36
Field observation							
	: Agric.	: 86	: 77	: 12	: 14	: 34	: 40
	: H. Dem.	: 51	: 45	: 10	: 9	: 29	: 52
	: Total	: 74	: 66	: 12	: 13	: 34	: 41
Meetings with extension committees							
	: Agric.	: 51	: 45	: 15	: 10	: 32	: 43
	: H. Dem.	: 44	: 36	: 16	: 10	: 24	: 50
	: Total	: 48	: 42	: 16	: 10	: 30	: 44
Participation in teaching activities							
	: Agric.	: 77	: 72	: 9	: 13	: 34	: 44
	: H. Dem.	: 87	: 74	: 10	: 15	: 23	: 52
	: Total	: 81	: 73	: 9	: 14	: 31	: 46
Judging fair exhibits							
	: Agric.	: 45	: 37	: 18	: 12	: 27	: 43
	: H. Dem.	: 42	: 31	: 33	: 13	: 12	: 42
	: Total	: 44	: 35	: 21	: 13	: 23	: 43

Teaching materials. - Seventy-six per cent of the agents reporting received bulletins, circulars, and similar aids to teaching from the subject-matter specialists, 56 per cent received demonstrational material and 50 per cent, charts. (Table 15.) In the case of 70 to 76 per cent of the specialists contacted, agents obtained medium to large amounts of assistance. The number of instances where the teaching material received from specialists was considered of no help to the agent is surprisingly high, however, and seems to be much more true of the material from home-economics specialists than of the material from agricultural specialists.

Table 15. - Assistance received from specialists by agents through publications, charts, and demonstration material

(289 agents reporting)

Kind of teaching material	Kind of agent	Percentage of agents reporting such contact with specialists	Percentage of agents reporting any assistance	Percentage of specialists contacted, from whom agents obtained the following degrees of assistance			
				None	Small	Medium	Large
Publications, bulletins, circulars, etc.	Agric.	72	65	7	18	35	40
	H. dem.	84	67	25	8	18	49
	Total	76	66	12	15	30	43
Charts	Agric.	56	48	15	11	27	47
	H. dem.	39	23	29	14	27	30
	Total	50	42	18	12	27	43
Demonstration material	Agric.	44	40	9	10	34	47
	H. dem.	78	66	17	10	17	56
	Total	56	49	13	10	26	51

According to 98 home demonstration agents in 8 States, the demonstrational material received from 17 per cent of the home-economics specialists was of no help to them. This was true of the charts of 29 per cent of the specialists and of the bulletins and circulars of 25 per cent of the specialists contacted by home demonstration agents. These percentages are in all cases much higher for the specialists contacted by the home demonstration agents than for the specialists contacted by the agricultural agents. These data raise the question as to whether those specialists working with home demonstration agents have quite so good an understanding of the kind of assistance needed as do those specialists working with the agricultural agents.

Correspondence, circular letters, and service activities. - Eighty-one per cent of the home demonstration agents and 82 per cent of the agricultural agents reported correspondence with specialists regarding the work contemplated or under way in the county. (Table 16.) Eighty-nine and 90 per cent, respectively, of the agents in these two groups received circular letters from specialists regarding either subject matter or methods. While the circular letters and personal correspondence from the majority of specialists are considered of value, it will again be noted that the circular letters of 36 per cent and the correspondence of 20 per cent of the specialists are not considered helpful by home demonstration agents. Again these percentages are much higher for the specialists contacted by home demonstration agents than for the specialists contacted by the agricultural agents.

Table 16. - Assistance received from specialists by agents through correspondence, circular letters and service activities

(289 agents reporting)

Nature of activity	: Kind of agent	: Percentage of agents reporting:		: Percentage of agents reporting:		: Percentage of specialists contacted from whom agents obtained the following degrees of assistance			
		: such contact with specialists:		: any assistance:		: None: Small:Medium:Large			
Correspondence	: Agric.	: 82	:	: 73	:	: 10	: 22	: 39	: 29
	: H. dem.	: 81	:	: 64	:	: 20	: 9	: 33	: 38
	: Total	: 81	:	: 70	:	: 12	: 19	: 38	: 31
Circular letters to agents regarding subject matter or method	: Agric.	: 90	:	: 79	:	: 13	: 18	: 33	: 36
	: H. dem.	: 89	:	: 71	:	: 36	: 12	: 26	: 26
	: Total	: 89	:	: 76	:	: 19	: 17	: 31	: 33
	:	:	:	:	:	:	:	:	:
Service activities	: Agric.	: 43	:	: 37	:	: 14	: 14	: 34	: 38
	: H. dem.	: 20	:	: 15	:	: 19	: 10	: 16	: 55
	: Total	: 36	:	: 30	:	: 15	: 13	: 31	: 41

More than twice as large a percentage of agricultural agents as of home demonstration agents reported assistance in the nature of service activities from specialists. The service activities of approximately one-seventh of the specialists are not helpful according to the county workers.

After making allowance for the personal dislikes of certain agents for certain specialists and for that small percentage of workers in any group who, because of inexperience or for other reasons, are not able to perform their duties in a satisfactory manner, it appears that thought should be given to improving the teaching materials furnished agents by specialists, and to making visits to agents more productive of tangible results.

Changes in emphasis suggested by agents. - The fact that 18 per cent of the agents cooperating in this study suggested that specialists should place more emphasis upon participation in teaching activities under way in the county is further evidence of the desire on the part of county workers that specialists assist with the direct teaching of rural people. (Table 17.) More emphasis on demonstration materials, field observation, and circular letters to agents were mentioned by 10 per cent or more of the agents. Eight per cent of the agents desired more district and special-group conferences with specialists.

Very few agents suggested that less emphasis be placed upon the various activities of specialists. Only two activities - circular letters to agents, and service activities - were mentioned by 5 or more per cent of the agents for reduced emphasis. The 9 per cent of agricultural agents desiring less use of circular letters by specialists about balances the 10 per cent of agricultural agents who wanted more circular letters from specialists regarding either subject matter or methods.

Comments of agents regarding specialists. - In addition to the information called for in the questionnaire the county workers cooperating in the study were invited to furnish additional information regarding the contribution of specialists to the work in the county. Although relatively few agents added information other than that called for in the questionnaire, their comments are doubtless indicative of the thinking of all agents.

That county workers fully recognize the important role of specialists in the cooperative extension system is very evident. This point of view may be illustrated by quotations from the statements of county workers.

Table 17. - Activities which should receive more emphasis or less emphasis by specialists

(From reports of 399 agents)

Means or agency	Percentage of agents reporting : more emphasis desired		Percentage of agents reporting : less emphasis desired		Percentage of agents reporting : All agents		Percentage of agents reporting : Agric. agents		Percentage of agents reporting : Home dem. agents		Percentage of agents reporting : All agents		Percentage of agents reporting : Agric. agents		Percentage of agents reporting : Home dem. agents		Percentage of agents reporting : All agents	
	Agric. agents	Home dem. agents	Agric. agents	Home dem. agents	Agric. agents	Home dem. agents	Agric. agents	Home dem. agents	Agric. agents	Home dem. agents	Agric. agents	Home dem. agents	Agric. agents	Home dem. agents	Agric. agents	Home dem. agents	Agric. agents	Home dem. agents
State-wide conference.....	1	1	1	1	1	1	4	1	1	1	4	1	1	1	1	1	3	1
District conference.....	11	3	3	3	8	3	1	3	3	3	1	3	1	3	3	3	2	3
Special-group conference.....	9	7	7	7	8	7	1	0	0	0	1	0	1	0	0	0	0.5	0
Personal conference in agent's office.....	9	8	8	8	8	8	3	0	0	0	3	0	3	0	0	0	2	0
Field observation.....	12	6	6	6	10	6	3	2	2	2	3	2	3	2	2	2	3	2
Meetings with extension committees.....	5	3	3	3	4	3	2	1	1	1	2	1	2	1	1	1	2	1
Participation in teaching activities.....	18	16	16	16	18	16	6	0	0	0	6	0	6	0	0	0	4	0
Judging fair exhibits.....	1	1	1	1	1	1	3	2	2	2	3	2	3	2	2	2	7	2
Correspondence.....	3	1	1	1	2	1	3	1	1	1	3	1	3	1	1	1	1	1
Circular letters re subject matter or methods.....	10	10	10	10	10	10	9	4	4	4	9	4	9	4	4	4	1	4
Publications, bulletins, circulars.....	4	7	7	7	5	7	0.4	1	1	1	0.4	1	0.4	1	1	1	1	1
Charts.....	4	5	5	5	5	5	2	0	0	0	2	0	2	0	0	0	1	0
Demonstration materials.....	6	22	22	22	12	22	1	1	1	1	1	1	1	1	1	1	1	1
Service activities.....	9	2	2	2	6	2	9	0	0	0	9	0	9	0	0	0	6	0

"I consider specialists are most essential to us in our work for I do not see how I could have managed without them this past year.

"To a new agent they are a blessing for a number of reasons:

1. Subject matter and teaching methods are explained more clearly by specialists.
2. They react as an inspiration, give moral support and certainly help out in difficult situations.
3. They keep us in contact with the state-wide movements, and make us work harder to broaden our local programs.
4. In our crowded program, we do not have the opportunity to keep up with the latest developments and again the specialists are invaluable.
5. New ideas for carrying on the work lend interest to local meetings." -- Home Demonstration Agent.

"The specialists are invaluable in developing programs, giving advice, and preparing bulletins and subject matter." -- Home Demonstration Agent.

"Specialists are the torch bearers of extension work and their work and services cannot be praised too highly. They are the men we county agents fall back on when we get in hard places." -- County Agricultural Agent.

"When anything comes up that I do not know about, I go to the specialist whose duty it is to know the answer. The specialists who really are specialists can be of as much help to the county agents as the county agents can be to the farmers." -- County Agricultural Agent.

County workers also point out some weaknesses or shortcomings of specialists which merit attention.

"I believe specialists could render more assistance if they were more familiar with the rural problems and conditions in the various counties insofar as they are peculiar to the individual county. More contacts of specialists with rural people in their own communities and environments would be helpful." -- Home Demonstration Agent.

"Specialists make a State plan of work to which county plans of work must conform. Each specialist expects each county agent to carry out the State plans. Sometimes this compels us to spread our efforts rather thin." -- Home Demonstration Agent.

"Why could not a specialist be scheduled for a week, or two weeks in a county and given an opportunity to study local conditions, rather than be scheduled in five different counties in one week, losing much precious time catching trains, etc. One week for a project instead of five days - one day each month for five months. Energy, travel expenses, and time would be saved, and more good accomplished." -- Home Demonstration Agent.

"A specialist becomes nearly useless to me in the county when he makes a hobby-horse out of some phase of his work to the extent that he puts no thought to conditions that might be different from those where his pet plans are concerned." -- County Agricultural Agent.

"Specialists might try to get the attitude of farmers just a little bit better and not speak in a foreign tongue quite so much. Also specialists sometimes have the attitude of 'take it or leave it' and this doesn't get results. I like to think of a specialist as one who can get action where the county agent can not." -- County Agricultural Agent.

"A real 'specialist', one who keeps up with the times on his subject, is an invaluable help to me. But many so-called specialists who know no more about their subject than the average county agent are of no practical value to us. Few specialists and better-equipped ones are desired. Then too, a specialist should not always be in a hurry when he comes to a county." -- County Agricultural Agent.

"Too many specialists want to leave college in the morning and return in the evening. Specialists give too much time to their own problems and not enough to the study of human nature. Too many specialists get too far away from the real farm problems." -- County Agricultural Agent.

An analysis of the statements of county workers, only a few of which have been quoted here, indicates that they believe that a specialist to be of maximum assistance in advancing the extension program in the county should:

1. First and foremost know the subject matter of his or her project.
2. Keep in close touch with the local conditions and problems of farm people.
3. Consider the human factor as well as the subject matter.
4. Feel responsibility of getting action by farm people. Do not have a "take it or leave it" attitude.

ADMINISTRATION AND SUPERVISION OF SPECIALISTS

Agricultural specialists are maintained as part of the extension organization in all of the States, and home-economics specialists are maintained on the extension staff in all except three of the small States. The percentage of the entire extension budget for the United States expended for subject-matter specialists has remained quite constant over a period of years. In fact it varied only 1 per cent during the 6-year period 1927-1932, being 19.7 per cent the first year and 20.7 per cent the last year mentioned. The change in ratio of specialists to county workers during the 10-year period 1923 to 1932 was equally slight.

How Many Specialist are Required?

Even though, as has been seen, the percentage of the extension budget for the entire United States expended for specialists has been uniformly about 20 per cent for a period of years, there are wide differences between States as to the number of specialists employed. Taking the fiscal year 1931-32 as an example there were three States, -- Texas, Illinois, and Nevada which budgeted only about 10 per cent of extension moneys for specialists, whereas there were five States, -- Connecticut, Michigan, Wisconsin, Ohio, and Maryland which spent more than 30 per cent of their budgets for specialists' services. (Table 18.) The size of the extension budget apparently has little bearing upon the percentage of the State budget expended for specialists' services.

On the basis of the 1932-33 budgets there were 10 States devoting less than 15 per cent of funds to specialists, 13 States between 15 and 20 per cent, 17 States 20 to 25 per cent, and 8 States spending over 25 per cent of the extension budget for subject-matter specialists. (Table 19.)

On the basis of number of counties per specialist the Eastern States had one specialist per county on October 31, 1932, as compared to one specialist for 2.6 counties in the Central group, one specialist for 4.4 counties in the Southern group, one specialist for 3 counties for the Western group, and one specialist for 2.6 counties for the United States as a whole. (Table 20.)

On the basis of county extension agents per specialist the regions into which the country is divided for Federal administrative purposes remain in the same relative order. There is less difference between the Eastern and Central States, however, and more difference between the Central and Southern States.

The inference should not be drawn from Table 20 that a particular specialist works in only two to four counties and with only two to seven county extension agents. The number of distinct subject-matter fields represented in a given State, usually makes it necessary for a specialist in dairying, poultry, clothing, or home management, as the case may be, to work in 25 to 40 counties during the year.

Table 18. - Budgeted expenditures for extension work, 1931-1932
grouped according to amount of expenditures

(Continental United States)

Amount of budget and State	County work		Specialists		Administration, publications, and supervision		Total
	Per-		Per-		Per-		
	Amount	cent- age	Amount	cent- age	Amount	cent- age	Amount
\$249,999 or less							
Arizona.....	\$106865	63.2	\$31279	18.5	\$30948	18.3	\$169092
Delaware.....	37959	57.3	11130	16.8	17140	25.9	66229
Maine.....	122365	59.1	47495	23.0	37034	17.9	206894
Nevada.....	88740	66.2	13540	10.1	31720	23.7	134000
New Hampshire.....	130850	61.0	42635	19.8	41358	19.2	214843
New Mexico.....	131590	65.7	34840	17.4	33751	16.9	200181
Rhode Island.....	35243	50.4	14579	20.9	20106	28.8	69933
Utah.....	110985	58.5	31025	16.4	47629	25.1	189639
Vermont.....	128160	65.9	36220	18.6	30029	15.4	194409
Wyoming.....	125678	59.9	38728	18.4	45489	21.7	209895
Total.....	\$1018440	61.5	\$301471	18.2	\$335204	20.3	\$1655115
\$250,000 to \$499,999:							
Colorado.....	\$163190	58.8	\$72135	26.0	\$42318	15.2	\$277543
Connecticut.....	152945	50.7	104267	34.6	44210	14.7	301422
Florida.....	264820	66.4	56305	14.1	77998	19.5	399123
Idaho.....	143695	54.1	73907	29.7	43105	16.2	265707
Maryland.....	210602	54.7	118531	30.8	55537	14.4	334670
Massachusetts.....	294394	62.0	113625	23.9	66835	14.1	474854
Montana.....	229145	65.0	77755	22.0	45870	13.0	352770
Nebraska.....	234015	57.3	111570	27.3	62885	15.4	408470
New Jersey.....	231865	64.6	104865	24.0	49589	11.4	436309
North Dakota.....	169049	56.4	75837	25.3	54950	18.3	299836
Oregon.....	215020	57.9	91202	24.5	65437	17.6	371659
South Dakota.....	187469	59.7	71700	22.3	55040	17.5	314209
Washington.....	201333	70.4	41100	14.4	43617	15.2	286055
West Virginia.....	213756	50.0	104800	23.9	114117	26.1	437673
Total.....	\$2966303	59.2	\$1222589	24.4	\$821408	16.4	\$5010300

Table 18. - Budgeted expenditures for extension work, 1931-1932
grouped according to amount of expenditures (Continued)

(Continental United States)

Amount of budget and State	County work		Specialists		Administration, publications, and supervision		Total
	Per-		Per-		Per-		
	cent-		cent-		cent-		
	Amount	age	Amount	age	Amount	age	Amount
\$500,000 to \$749,999							
Arkansas.....	\$418467	72.1	\$68019	11.7	\$94238	16.2	\$580724
Indiana.....	431479	67.7	121765	19.1	84353	13.2	637597
Kentucky.....	378826	61.2	126045	20.4	113920	18.4	618791
Louisiana.....	336732	65.8	82110	16.1	92530	18.1	511422
Michigan.....	363696	51.4	237135	33.6	105825	15.0	706656
Minnesota.....	357086	64.6	108979	19.7	86869	15.7	552934
Mississippi.....	457051	69.1	89970	13.6	114186	17.3	661207
Missouri.....	342629	62.6	136660	25.0	67655	12.4	546944
North Carolina.....	496167	69.9	110420	15.6	103317	14.5	709904
Oklahoma.....	412611	68.6	87137	14.5	101445	16.9	601193
South Carolina.....	326305	60.9	106295	19.9	102770	19.2	535370
Tennessee.....	428007	66.0	118750	18.3	101340	15.6	648097
Virginia.....	404485	61.2	138626	21.0	117667	17.8	660773
Wisconsin.....	301543	52.3	182355	31.9	87405	15.3	571303
Total.....	\$5455134	63.8	\$1714266	20.1	\$1373520	16.1	\$8542920
\$750,000 or more							
Alabama.....	\$458836	60.7	\$165789	21.9	\$130711	17.3	\$755336
California.....	612110	68.7	169084	19.0	110009	12.3	891203
Georgia.....	535629	69.2	130555	16.9	107821	13.9	774005
Illinois.....	870822	81.9	107010	10.1	85473	8.0	1063305
Iowa.....	657077	64.4	246717	24.2	116890	11.4	1020634
Kansas.....	497419	65.3	181110	23.8	82874	10.9	761403
New York.....	1190598	68.5	380217	21.9	167742	9.6	1738557
Ohio.....	483262	54.5	276753	31.2	127165	14.3	887185
Pennsylvania.....	556571	64.1	223740	25.7	88350	10.2	868661
Texas.....	1026621	77.3	119605	9.0	181846	13.7	1328072
Total.....	\$6888945	68.3	\$2000525	19.8	\$1198831	11.9	\$10088411
Grand total.....	\$16323822	64.6	\$5233911	20.7	\$3729013	14.7	\$25296746

Table 19. - Number of States allotting varying proportions of extension budgets for specialists' service

(Continental United States 1932-1933)

Percentage of budget for specialists	Number of States in group	Average percentage budget for specialists
Under 15	10	11.98
15 to 19.9	13	17.57
20 to 24.9	17	22.42
25 and over	8	31.00

Table 20. - Counties and agents per specialist by geographical regions and according to size of States

(As of October 31, 1932)

Group	Number of States in group	Average number of counties per specialist	Average number county extension agents per specialist (white and negro)
Continental United States	48	2.62	3.61
Eastern States.....	12	1.00	2.31
Central States.....	13	2.61	2.59
Southern States.....	12	4.40	7.09
Western States.....	11	3.01	3.40
States with:			
0 to 29 counties.....	13	1.05	2.24
30 to 59 counties.....	9	2.75	3.52
60 to 89 counties.....	14	2.26	3.23
90 and over counties.....	12	3.95	4.72

When the States are grouped according to size as expressed by the number of county units it becomes evident that differences apparently due to regional locations are really largely due to differences in size. (Table 20.) The smaller States feel the need for one subject-matter specialist for each important subject-matter field. With increased size there does not appear to be a need for a proportional increase in the number of specialists per county or per county extension agent.

Extension directors were asked to state what they considered a proper ratio of specialists to county agents. While 36 directors replied to this part of the questionnaire there was little unanimity of opinion. Apparently the number of specialists required is too dependent upon conditions and the peculiar organization of extension work within the State, to permit of the establishment of standard specialist requirements. The best available guide would appear to be the 20 per cent of the extension budget which States average to spend for specialist services.

Officing of Specialists

In order to throw some light on whether specialists should be housed with the extension division or with the subject-matter departments, information was obtained from extension directors as to present practices, and most desirable arrangement if the extension service were being set up anew.

In the States from which replies were obtained the agricultural specialists were officed in the subject-matter departments in 51 per cent of the cases and in the extension division in 29 per cent of the cases. Both plans were followed in approximately 20 per cent of the States. With home-economics specialists the predominant practice is to office them with the extension division, this being true in 95 per cent of the States. (Table 21.)

Table 21. - Location of offices of specialists

(41 directors reporting on agricultural specialists, 38 on home-economics specialists, and 40 on preference if new set-up were made)

Location of specialists' offices	Percentage of directors reporting			
	Existing arrangement		Preference if set-up new	
	Agric.	Home-econ.		
	specialists	specialists		All specialists
With subject-matter department...	51.2	2.6		47.5
With extension division.....	29.3	94.8		42.5
Some with subject matter, some				
with extension.....	19.5	2.6		10.0

Assuming that the existing arrangement might be abolished, leaving the extension director free to office the specialists where he pleased, it is interesting to note that only 5 per cent more directors would office specialists with subject-matter departments than would office them with the extension division. Theoretically the plan of officing the subject-matter specialists with the subject-matter departments, where they can be in close touch with the teaching and research personnel, would seem the most desirable. It is evident, however, that conditions within the State, or the personal preference of the directors for closer supervision of specialists make it appear more desirable in nearly half the States to office specialists with the extension division.

Division of Work Among Specialists

Where several specialists are employed on a given project it is the more common practice to place one specialist in charge of the project with the others serving as assistants, this being the plan followed with agricultural specialists in 41 per cent and with home-economics specialists in 38 per cent of the States. (Table 22.) Division of the subject matter of the project on a coordinate basis is the plan followed with agricultural specialists in 30 per cent and with home-economics specialists in 33 per cent of the States. Division of the State among specialists is the plan followed with agricultural specialists in 3 per cent of the States and with home-economics specialists in 10 per cent of the States. A combination of two or more of the preceding plans was reported for agricultural specialists in 27 per cent of the States and for home-economics specialists in 19 per cent of the States.

The same plan is followed for both agricultural and home-economics specialists in 76 per cent of the States.

Table 22. - Basis of division of work where more than one specialist is employed on a project

(37 directors reported on agricultural specialists, and 21 directors on home-economics specialists)

Basis of division	Percentage of States	
	Agriculture	Home economics
Division of State.....	2.7	9.5
Division of subject matter.....	29.7	33.3
One in charge, others assist.....	40.6	38.1
Combination of above.....	27.0	19.1

Note - The same basis is used for both agriculture and home economics in 76.2 per cent of the States.

How Counties to be Worked in by Specialists are Determined

No single factor is pointed to by extension directors as largely determining the counties in which a specialist works. The importance of the project and the request of the agents have most influence on this, but other factors seem to enter also. The specialists' initiative is used along with other factors, indicating that the specialists give consideration to other than their own personal desires even when proposing for themselves the counties in which they shall work.

The importance of the project with other influences was responsible for the selection of counties for agricultural specialists' work in 83 per cent of the States and requests of the agents combined with other factors in 76 per cent. With home-economics specialists the combined importance of the project with other things and requests of agents along with other things were responsible for the selection of particular counties in 56 per cent and 82 per cent of the States respectively. In 59 per cent of the States reporting the same factors were responsible for the selection of counties to be worked in for both agricultural and home-economics specialists.

The contacts of agricultural specialists are made direct with county extension agents in the larger number of cases, while home-economics specialists have their contacts with county workers arranged more frequently through district or State supervisors. There is evidence of close cooperation in this, since directors' reports show that both plans are used in many cases. Only one State reports that contacts of specialists with county workers are arranged entirely through the central office.

Two States report that in counties with county extension agents agricultural specialists make direct arrangement for work with rural people without first contacting the extension agents. Only one State reports that this is true for home-economics specialists. In three other States there were reports that "some", "seldom", "very few" such direct contacts are made by agricultural and home-economics specialists.

That specialists contact directly with rural people in counties without county extension agents was reported in 48 per cent of the States for agricultural specialists and in 52 per cent of the States for home-economics specialists.

Who Supervises Specialists?

In nearly half (47.6 per cent) of the States participating in this study the extension director is solely responsible for the supervision of agricultural specialists. In 14 per cent of the States the assistant director has that responsibility. In one State the State leader of county agents is also supervisor of specialists. In three States supervision of agricultural specialists rests entirely with the heads of subject-matter departments, while in six other States the responsibility of supervising specialists is divided between the subject-matter departments and the extension division.

Supervision of home-economics specialists is handled differently from supervision of agricultural specialists in 60 per cent of the States. In 45 per cent of the States supervision of home-economics specialists rests entirely with the State leader of home demonstration agents. In 22.5 per cent of the States the supervision rests solely with the extension director and in 7.5 per cent of the States solely with the assistant director. In no State are the heads of subject-matter departments solely responsible for supervising home-economics specialists though they share that responsibility with the extension division in four States.

There appears to be need for improvement of supervision of both agricultural and home-economics specialists in many States since extension directors are entirely too busy with routine administrative and emergency problems to be able to give adequate attention to assisting specialists increase their effectiveness. Supervision of specialists would seem to be fully as important as supervision of county extension agents and both should be definitely provided for in the extension organization. In the larger States there would seem to be definite need for a State leader of subject-matter specialists.

Cost of Specialist's Service to County

All costs of specialists' services to counties are usually borne by the State extension service. In seven of the States reporting, however, the counties are required to bear part of the cost of specialist service. The usual plan in four States is for the county to furnish all transportation within the county. Actually this is the practice in a large number of States where the extension agent's automobile is owned by the county or the agent is reimbursed on a mileage basis for official use of a personally owned automobile. In one State a definite allotment of \$100 to \$750 per county is set aside to cover cost of specialists' assistance. In another State the county pays travel of specialist to and from the county up to \$5.00, and all expenses while in the county. Where a special trip of specialist to county is requested one State requires the county to bear all travel and subsistence costs.

Qualifications of Specialists

What has been the education and experience of those now holding specialist positions? What education and experience are essential to the successful conduct of the work of an extension specialist? Requests for appointments as agents of the United States Department of Agriculture, filed with the Federal Extension Service furnish reliable data on the first question and opinions of specialists, and extension directors throw considerable light on the second one.

Education and experience. - Complete information as to the education and experience at the time of appointment is available from the appointment requests of 552 State subject-matter specialists. All but 10 per cent of the agricultural specialists, and 12 per cent of the home-economics specialists held at least a bachelor's degree at the time of such appointment. Thirty-four per cent of the home-economics specialists had a master's degree and 34 per cent of the agricultural specialists had a master's or a doctor's degree. (Table 23.)

Table 23. - Education and experience of specialists at time of appointment
as taken from appointment requests

(552 specialists)

Kind of training or experience	Percentage agricultural specialists	Percentage home-economics specialists
Bachelor's degree (only).....	56.0	53.8
Master's degree.....	30.4	34.2
Doctor's degree.....	3.8	-
No degree.....	9.8	12.0
Brought up on farm		
Wholly.....	63.6	36.8
Partly.....	3.3	8.5
Managed farm or home.....	26.6	3.4
Business experience.....	15.1	5.1
Teaching experience.....	45.9	76.9
Research experience.....	6.9	4.3
County extension work.....	32.3	47.0
Other experience.....	23.7	13.7

Of the agricultural specialists 64 per cent were brought up on a farm, 27 per cent had managed a farm, 46 per cent had had teaching experience, and 32 per cent had been county extension agents before becoming subject-matter specialists.

Of the home-economics specialists 37 per cent were reared on farms, 77 per cent had had teaching experience, and 47 per cent had served as county home demonstration agents before becoming State specialists.

Evaluation of qualifications of agricultural specialists. - Opinions as to the relative importance of qualifications for specialist's work were expressed by 493 agricultural specialists and 42 State extension directors. Both specialists and directors rate technical training equivalent to a 4-year college course as being of first importance to the successful conduct of specialist's work. The majority of specialists and directors think graduate study leading to an advanced degree desirable, but only a small percentage considers such study essential. (Table 24.)

Fifty-six per cent of the agricultural specialists and 57 per cent of the directors consider being brought up on a farm as essential to specialist work. Experience as a county extension worker, as a teacher, and as a research worker is considered desirable by the majority of specialists and directors. It is interesting to note, however, that 26 per cent and 36 per cent, respectively, of the extension directors reporting do not consider teaching and research experience important for an agricultural specialist.

Table 24. - Evaluation of qualifications of agricultural specialists

(493 specialists and 42 directors reporting)

Qualifications	*Percentage of agricultural specialists			*Percentage of extension directors		
	Essen- tial	Desir- able	Not im- portant	Essen- tial	Desir- able	Not im- portant
Brought up on farm (wholly or partly).....	56	41	2	57	38	2
Managed farm or home.....	10	75	15	7	81	7
Experience as county extension worker.....	17	64	18	10	78	5
Experience as teacher.....	14	63	23	12	62	26
Experience in research work:	14	58	27	2	50	36
Technical training (4-year college course):..	91	8	0	93	7	0
Graduate study leading to advanced degree.....	16	70	13	7	90	0

*In some instances a specialist or director failed to report on certain of the qualifications listed.

Evaluation of qualifications of home-economics specialists. - According to the opinions of 140 home-economics specialists technical training represented by a 4-year college course is essential, and graduate study desirable if not essential. Extension directors rate technical training of equal importance for home-economics specialists as for agricultural specialists. To have been brought up on a farm is considered desirable but not so essential for home-economics specialists as for agricultural specialists. Experience in managing a home, while desirable, is not considered essential by either extension directors or home-economics specialists. (Table 25.) Experience as a county home demonstration agent is considered desirable if not essential by the majority of directors and specialists reporting. Ninety per cent of the home-economics specialists think classroom teaching experience essential or desirable for a successful home-economics specialist. However, 24 per cent of the extension directors rate such experience as not important. Approximately the same percentage of extension directors rate research experience as not important as rate it desirable for a home-economics specialist.

In view of the nature of the extension specialist's job it is logical that first emphasis be placed upon technical training. Experience in farming or home making, as a county extension worker, a classroom teacher, or as a research worker all contribute a background of experience that is helpful to the specialist in the conduct of his or her work.

Table 25. - Evaluation of qualifications of home-economics specialists

(140 specialists and 42 directors reporting)

Qualifications	Percentage of home-economics specialists:			Percentage of extension directors		
	Essen-	Desir-	Not im-	Essen-	Desir-	Not im-
	tial	able	portant	tial	able	portant
Brought up on farm (wholly or partly).....	16	77	6	14	78	2
Managed farm or home....	5	79	13	2	76	12
Experience as a county worker.....	22	69	4	12	74	7
Experience as a teacher..	54	36	6	12	60	24
Experience in research work.....	5	58	34	0	45	43
Technical training (4-year college course):	96	4	0	78	17	2
Graduate study leading to advanced degree....	35	62	2	7	90	0

Academic Rank of Specialists

Slightly less than half (47.6 per cent) of the institutions reporting confer academic rank upon extension specialists. More institutions confer the rank of assistant professor than any other rank. Of the 495 agricultural specialists and the 140 home-economics specialists furnishing information on this question 42 per cent of the former and 50 per cent of the latter held no academic rank at the institutions employing them. (Table 26.) In general, the academic rank held by agricultural specialists is somewhat higher than the rank held by home-economics specialists. This difference is probably due to better training and greater length of service rather than to any distinction between the two groups of specialists.

Table 26. - Academic rank held by specialists

(495 agricultural specialists, 140 home-economics specialists and 42 directors reporting)

Academic rank held	Percentage specialists holding rank:		Percentage institutions conferring rank
	Agriculture	Home economics	
No rank.....	42.0	50.0	52.4
Instructor.....	7.3	19.3	23.8
Assistant professor...	23.4	25.0	38.1
Associate professor...	11.7	3.6	31.0
Professor.....	15.6	2.1	28.6

Sabbatic Leave and Retirement Privileges

Twenty-five of the 42 institutions furnishing information grant sabbatic leave to extension specialists. Nineteen of the States extend sabbatic leave privileges to county extension workers also. The plan for granting such leave varies with institutions, but in general full pay for half year or half pay for a full year's absence is granted after 6 or 7 years of service.

Nine States report a plan for the retirement of extension specialists upon reaching a certain age limit, usually between 65 and 70 years of age or upon completion of 30 to 35 years of service, or both. No two institutions follow exactly the same plan or provide the same retirement pay.

Ways of Improving Specialists' Work

The specialists were asked for suggestions as to how their work might be improved and 395 of them answered this part of the questionnaire. Time for advanced study is the most important means of strengthening the work of the specialists, according to their own opinions. (Table 27.) Better planning of programs and projects and analysis of fundamental needs and problems were listed as next in importance. The need for contact with other workers is felt by a number of specialists and expressed in terms of closer association with research, State, regional and other conferences, correlation of work with other specialists and the desire to observe the work of other specialists. The fact that a small per cent of specialists indicate that a concentration of attention on fewer projects would strengthen their work leads to the belief that some try to cover too large a field and that they wish to become more highly specialized. The number mentioning this problem is not great enough, however, to be of much significance.

Table 27. - Suggested ways of improving specialists' work

(395 specialists reporting)

Suggestions	Percentage of specialists reporting
Time for advanced or graduate study.....	43.1
Better planning of programs and projects.....	16.7
Analysis of fundamental needs and problems.....	9.6
Time for research work, or closer association with research.....	6.4
State, district, or group conferences.....	5.5
Correlation with work of other specialists.....	5.0
National or regional conferences.....	4.8
Study of work in field.....	4.1
Concentration on fewer projects.....	4.0
Opportunity to observe work of other specialists:	3.3

How Success of Specialists' Work is Determined

The specialists cooperating in this study were asked to state how they determined the extent to which their efforts were successful, and 509 specialists filled out this part of the questionnaire. Extension directors were also requested to tell how they determined the degree of success attained by specialists.

That specialists are thinking of their contributions to the sum total of extension teaching whether done directly by the specialists themselves or through the county extension agents is evidenced by the large percentage (33.4) who measure the success of their work in terms of numbers of farm people influenced to adopt improved farm or home practices. (Table 28.) Reports of agents, local leaders, demonstrators and cooperators also enable the specialists to check back on the success of their efforts. The number of requests received for the services of the specialist is also considered an indication of whether that specialist is successfully carrying on his project.

The extension director as the chief administrative officer in the State must rely largely upon the reports of subordinates for information regarding the progress of extension work. With 81 per cent of the directors reporting mentioning reports of extension workers as a means of determining the success of specialists' work the importance of an adequate system of reporting for both agents and specialists is evident. (Table 28.) Extension directors also rely upon conferences with the specialists and other extension workers to supplement the information obtained from written reports. Requests for assistance received from county workers is also an important way in which directors measure the success with which a given specialist is conducting his work.

Nearly one-fourth of the extension directors attempt to check specialists' work through field observations. Attitude of agents and people worked with, volume of activities conducted, and the personal qualifications of specialists are other ways given by directors for determining the success attained by specialists in their work.

The problem of measuring extension accomplishments and the contributions of specialists to the success of the extension teaching program is not now being adequately met. There is need for administrative and supervisory officers to devise measures of extension results which are not only valid and reliable but which will enable one to determine in an objective way just how much is being accomplished. In making plans with agents specialists may well give more thought to the obtaining of suitable information by which to gauge the success of a particular endeavor.

Table 28. - Ways used by specialists and directors to determine success of specialists' work

(509 specialists and 42 extension directors reporting)

Ways of determining success	Percentage of specialists or directors reporting
(As reported by specialists)	
Extent of adoption of improved practices by farm people....	33.4
Reports of county extension agents, leaders, demonstrators, and cooperators.....	31.6
Demands for work, and requests for services and information:	25.9
Reactions and attitude of agents, leaders, and farm people.:	12.6
Personal inspection, observation, and inquiry.....	8.0
(As reported by extension directors)	
Reports of extension workers.....	81.0
Conferences with specialists and other extension workers....	47.6
Demand and response of county workers, and opinions of agents and people.....	31.0
Observation.....	25.8
Attitude of agents and people.....	19.0
Checking progress of plans and programs.....	16.7
Volume of activities of specialists.....	16.6
Personal qualifications of specialists.....	11.9

CONCLUSIONS

Extension practice to date would seem to indicate that extension specialists are necessary for the most successful conduct of extension work through county extension agents.

The functions of subject-matter specialists may be divided into planning functions, requiring 26 per cent of the time of specialists; training functions taking 25 per cent; direct teaching 42 per cent; and studying the extension job 7 per cent.

The planning of extension projects is the most important function of specialists according to extension directors; the preparation of teaching materials, the determination of programs, the training of extension workers, and direct extension teaching following in the order given.

Visiting counties to confer with agents, to make field observations, to meet with extension committees, or to participate in extension teaching activities is by far the greatest time-consuming activity of specialists, accounting for approximately 42 per cent of their time. The preparation of teaching materials, correspondence, conferences, meetings of enterprise groups and the reading and making of reports are other activities requiring more than 5 per cent of specialists' time each.

Participation in extension teaching activities in counties, conferences with agents, field observations, preparation of bulletins and circulars, demonstrational materials, and charts, and the handling of correspondence are their most important activities according to the statements of the specialists themselves.

The problems most frequently mentioned by agents for additional attention by specialists were studies to determine the most effective way of conducting subject-matter projects, keeping posted, teaching materials, ways of determining results of work, collection of data on results, community and county programs of work and assistance with demonstrations and leader training meetings.

The number of instances where county extension agents reported no assistance obtained from the specialists contacted is too high to be explainable on the basis of personalities of specialists and agents. The difficulty would seem to be due rather to poorly qualified specialists, improper planning, and inadequate supervision.

The activities on which 15 per cent or more of specialists failed to give the agents assistance are:

For agricultural agents:

- Judging fair exhibits.
- Meetings with extension committees
- Conferences with agents in county office
- Charts

For home demonstration agents:

- Circular letters
- Judging fair exhibits
- Charts
- Publications
- Correspondence
- Service activities
- District conferences
- Demonstrational material
- Meetings with extension committees
- Conferences with agent in county office

According to county extension agents specialists to be of greatest service to counties should:

1. First and foremost knew the subject matter of his or her project.
2. Keep in close touch with local conditions and problems of farm people.
3. Consider the human factors as well as the subject matter.
4. Feel responsibility of getting action by farm people.

Extension experience would seem to indicate that about 20 per cent of the extension budget should be expended for specialists' services, varying inversely with the size of the State.

Extension directors are about equally divided as to whether specialists should office with subject-matter departments or with the extension division.

Where more than one specialist is employed on a project the usual plan is to divide subject-matter responsibility, or for one to be in charge of project with the others as assistants. Division of the State between specialists is not considered desirable.

Supervision of extension specialists, particularly agricultural specialists, is too largely left to extension directors whose time is too fully occupied with administrative routine and emergency matters to permit of much creative supervision of specialists. The State extension organization should definitely provide for the supervision of specialists as well as for the supervision of county extension agents.

The scientific organization and supervision of specialists' work is dependent upon the use of suitable objective measures in determining the progress of extension teaching and the success attained by specialists.

No attempt has been made in this circular to outline procedure in arriving at suitable specialist programs and plans of work since the authors consider that a problem for a separate study.



